

An intelligent gain controller operates to control the gain in each one of wideband uplink and downlink signal paths. Weak desired signals, within each wideband signal path, are detected using a narrowband down converter and detector, and these desired signals monitored by the micro controller. Based on the monitored signals, the micro controller operates, under control of suitable software implementing an Adaptive Control Algorithm, to adjust the gain in each of the uplink and downlink paths in order to dynamically optimize performance.